

# ATLANTIC TERRA COTTA



Oriental Panel of Polychrome Atlantic Terra Cotta in Court of Gallery of Fine Arts, Columbus, Ohio

Vol. XI - No. 3

Published November 1932

# CLEANABILITY, A Factor in Choice of Building Material

*Excerpts from an article by George Edgecombe published  
in the April 1932 issue of the "Real Estate Magazine."*

... The comparatively sudden development of the ceramic arts a quarter of a century ago placed in the hands of the architect and the builder an exterior material in which the very finest and most beautiful ornamentation could be achieved and in which an ever expanding choice of colors was constantly available. ... During the peak of the greatest building boom New York City or the entire country ever witnessed, ornamentation of that sort achievable through the use of other than ceramic materials, came into vogue. On the whole, however, the exteriors of buildings became more severely plain and except where a wide selection of color was desired, substitutes for terra cotta such as face brick and limestone gained in favor.

... Whatever changes are in store for the building construction field, it will probably be generally conceded that, no matter how revolutionary they may be, there will be a recrudescence of tasteful ornamentation and a demand for materials which will be cheerful and attractive—also for exterior materials that are susceptible of economical cleaning. ... Dense, smooth, hard brick and architectural terra cotta are favorite materials when consideration is given to future appearance. Some of the more dense stones, such as granite, also meet the requirements. These, however, are much more expensive to cut and transport. Cleaning granite is accomplished by sandblasting, also an expensive process. Most other types of brick and stone are of porous texture and capable of a high degree of absorption. Thus they are apt to soil so badly that a really successful cleaning is seldom possible.

... The appearance of brick exteriors after cleaning may be measurably affected, for example, by the character of the mortar joints. In a wall of small units—such as brick—where the mortar joints are heavy, with a rough surface which may collect and retain soil, the cleaned wall will never present as fresh an appearance as where thinner joints are used and thus form a smaller proportion of the total wall area, or where the joints have been tooled to obtain a smooth dirt resisting surface. As the size of the unit of building block increases, the proportion of the wall area occupied by the mortar joints decreases and the obvious cleanliness of the wall is likely to increase accordingly.

PP  
10/1932

# ATLANTIC TERRA COTTA



A graphic record of note-  
worthy installations of  
Atlantic Terra Cotta.

Vol. XI, No. 3

November, 1932.

## ATLANTIC TERRA COTTA COMPANY

19 West 44th Street, New York, N. Y.

Southern Plant: ATLANTA TERRA COTTA COMPANY, Atlanta, Georgia

Philadelphia District Office: Architects' Building, 17th & Sansom Streets  
Southwestern District Office: 807-8 Praetorian Building, Dallas, Texas



**SOUTHWESTERN BELL TEL. BLDG.** San Antonio, Texas  
I. R. Timlin, *Architect*      McKenzie Construction Company, *Builders*

Plate CXXVI  
Number 1475

This new and thoroughly modern building is decorated with Spanish Baroque details executed in Atlantic Terra Cotta. This type of ornament is particularly appropriate as it conforms to the traditions of the Southwest and is generally similar to that of the historic Alamo which is nearby. The entrance features, the main entrance lobby, the first story decorative spandrels, the spandrels of the main bay, the parapets of the main building and pent house and all sills and jambs are of Atlantic Terra Cotta in a mottled cream and tan Abbochrome. This, one of the most elaborately decorated buildings of recent years, is another instance of the beauty that can be achieved with this plastic and versatile building material.

# ATLANTIC TERRA COTTA

Vol. XI, No. 3

Published November, 1932

## Recent Advancements in Terra Cotta Manufacture

The Terra Cotta industry is one wherein craftsmanship and artistry will always be considered of greater importance than mass production. Tradition, however, has not deterred the advancement so necessary if a product is to take its place among those suitable for modern construction. The Atlantic Company through experiment and research, has developed Terra Cotta manufacture to a degree that even a few years ago would have seemed impossible.

The development has been general. Clays, for instance, are now chosen for various physical qualities and combined to exact formula so that the resultant Terra Cotta body possesses the desirable properties of all its constituents. This improved body produces a Terra Cotta of great structural strength and allows the making of units of considerable size.

The color range, too, is almost unlimited. Nearly two hundred standard tones of blues, buffs, greens, etc., ranging from soft pastel shades to brilliant polychrome effects are now the every day choice of the designer. Ceramic finishes, such as gold and silver and bronze, are also available.

Especially interesting are the new "Abbochrome" colors. These are a mottled combination of three or more colors with any desired tone predominating. The surface in either matt or lustrous glazes, is minutely irregular affording a texture which evenly diffuses light and which gives a warm richness so necessary in modern architecture. These colors, designed originally for interior walls, are being increasingly used on exteriors as indicated by several examples shown herein. Polychrome colors are sometimes used in combination with an Abbochrome finish. The resulting colors are soft in effect without loss in strength, blending and yet contrasting with the Abbochrome background and preventing the monotony of a flat monochrome on large ashlar areas.

The manufacture of mechanically made units of Atlantic Terra Cotta has been so perfected that now blocks as large as twelve by twenty four inches are considered standard. Atlantic Wall Units of this size undoubtedly will have considerable influence on the architecture of the future. They are most appropriate for exterior ashlar areas as they are light in weight for easy and economical installation and have, at the same time, great insulation value against heat, cold and sound. They are absolutely permanent, fire resistant, impervious to the effects of weather, water and chemical action and they are, of course, obtainable in any Atlantic color.

The tympanum of the Pennsylvania Museum of Art is another example of what can be done with modern manufacturing methods. It is the first time in history that an architectural statuary group of such gigantic size has been executed in polychrome glazed Terra Cotta. Extreme care was given to the jointing which was so cleverly hidden in the folds of garments, etc., that the effect is that each figure was fired in one piece. The units of this tympanum, as well as the architectural details of the building, were of such large size and contained so much ceramic gold and other special fire colors, that the construction of a new type of kiln was required. It is now, of course, easily possible for us to produce equally large scale work in these colors.



A Corinthian column capital of polychrome Atlantic Terra Cotta on the Pennsylvania Museum of Art in Philadelphia, Pa. See pages ten and eleven for colored illustration and brief descriptive article on the recently completed tympanum for this building.



**SOUTHWESTERN BELL TEL. BLDG.** San Antonio, Texas  
I. R. Timlin, *Architect*      McKenzie Construction Company, *Builders*

Plate CXXVI  
Number 1475

This new and thoroughly modern building is decorated with Spanish Baroque details executed in Atlantic Terra Cotta. This type of ornament is particularly appropriate as it conforms to the traditions of the Southwest and is generally similar to that of the historic Alamo which is nearby. . . . The entrance features, the main entrance lobby, the first story decorative spandrels, the spandrels of the main bay, the parapets of the main building and pent house and all sills and jambs are of Atlantic Terra Cotta in a mottled cream and tan Abbochrome. . . . This, one of the most elaborately decorated buildings of recent years, is another instance of the beauty that can be achieved with this plastic and versatile building material.

# ATLANTIC TERRA COTTA

Vol. XI, No. 3

Published November, 1932

## Recent Advancements in Terra Cotta Manufacture

The Terra Cotta industry is one wherein craftsmanship and artistry will always be considered of greater importance than mass production. Tradition, however, has not deterred the advancement so necessary if a product is to take its place among those suitable for modern construction. The Atlantic Company through experiment and research, has developed Terra Cotta manufacture to a degree that even a few years ago would have seemed impossible.

The development has been general. Clays, for instance, are now chosen for various physical qualities and combined to exact formula so that the resultant Terra Cotta body possesses the desirable properties of all its constituents. This improved body produces a Terra Cotta of great structural strength and allows the making of units of considerable size.

The color range, too, is almost unlimited. Nearly two hundred standard tones of blues, buffs, greens, etc., ranging from soft pastel shades to brilliant polychrome effects are now the every day choice of the designer. Ceramic finishes, such as gold and silver and bronze, are also available.

Especially interesting are the new "Abbochrome" colors. These are a mottled combination of three or more colors with any desired tone predominating. The surface in either matt or lustrous glazes, is minutely irregular affording a texture which evenly diffuses light and which gives a warm richness so necessary in modern architecture. These colors, designed originally for interior walls, are being increasingly used on exteriors as indicated by several examples shown herein. Polychrome colors are sometimes used in combination with an Abbochrome finish. The resulting colors are soft in effect without loss in strength, blending and yet contrasting with the Abbochrome background and preventing the monotony of a flat monochrome on large ashlar areas.

The manufacture of mechanically made units of Atlantic Terra Cotta has been so perfected that now blocks as large as twelve by twenty four inches are considered standard. Atlantic Wall Units of this size undoubtedly will have considerable influence on the architecture of the future. They are most appropriate for exterior ashlar areas as they are light in weight for easy and economical installation and have, at the same time, great insulation value against heat, cold and sound. They are absolutely permanent, fire resistant, impervious to the effects of weather, water and chemical action and they are, of course, obtainable in any Atlantic color.

The tympanum of the Pennsylvania Museum of Art is another example of what can be done with modern manufacturing methods. It is the first time in history that an architectural statuary group of such gigantic size has been executed in polychrome glazed Terra Cotta. Extreme care was given to the jointing which was so cleverly hidden in the folds of garments, etc., that the effect is that each figure was fired in one piece. The units of this tympanum, as well as the architectural details of the building, were of such large size and contained so much ceramic gold and other special fire colors, that the construction of a new type of kiln was required. It is now, of course, easily possible for us to produce equally large scale work in these colors.



A Corinthian column capital of polychrome Atlantic Terra Cotta on the Pennsylvania Museum of Art in Philadelphia, Pa. See pages ten and eleven for colored illustration and brief descriptive article on the recently completed tympanum for this building.



**SOUTHWESTERN BELL TEL. BLDG.**

I. R. Timlin, Architect

**San Antonio, Texas**

McKenzie Construction Company, Builders

The main entrance which faces San Antonio's Auditorium Circle gives to tenants and visitors an inviting atmosphere of warmth and friendliness. Such extensive modeled ornament combined with the added beauty of color would be physically and economically impossible in any material except Terra Cotta.

Plate CXXVIII  
Number 1475



Plate CXXIX  
Number 1475

**SOUTHWESTERN BELL TEL. BLDG.**

I. R. Timlin, *Architect*

**San Antonio, Texas**

McKenzie Construction Company, *Builders*

One of the supplementary entrances showing the crisply modeled details which faithfully reproduce the plasticity and spirit of the modeller's original work. This is one of the advantages of Atlantic Terra Cotta. Another is the economy with which ornament can be duplicated; for instance, each unit of the details shown in the above entrance is generally used two or more times in the design. There are seven such entrances and all made from one set of models and moulds.

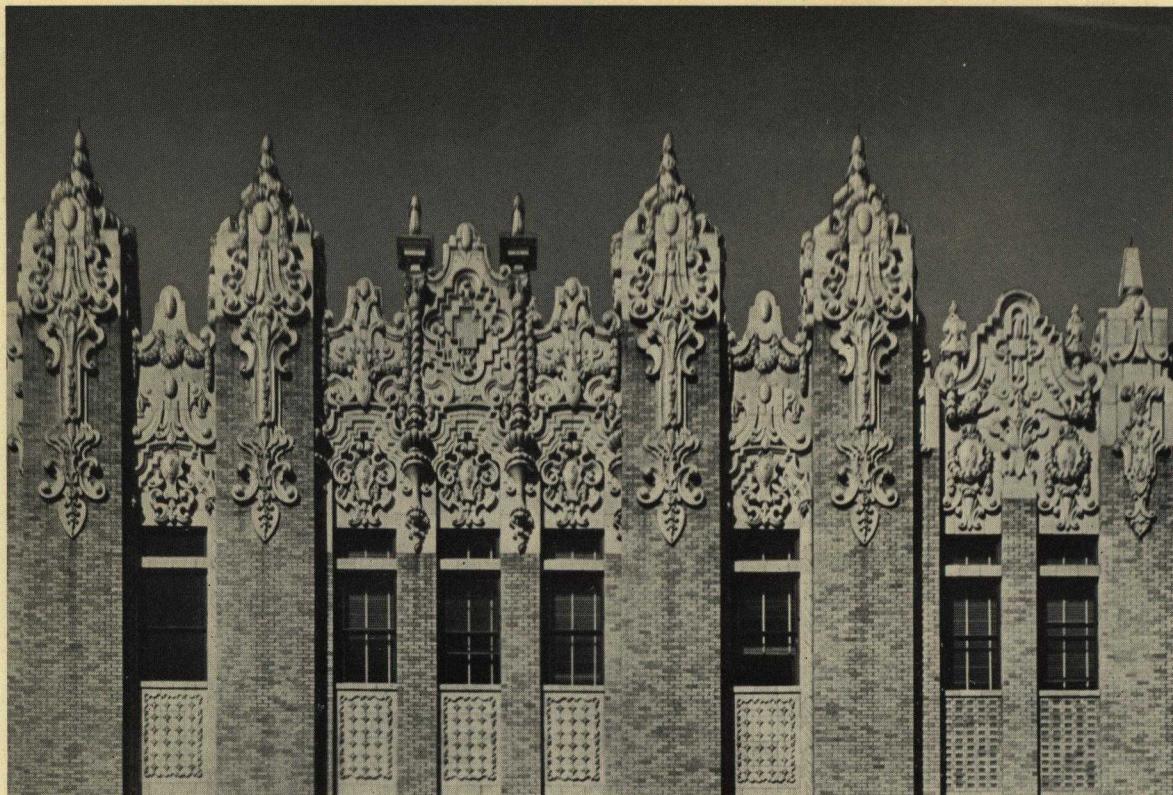


Plate CXXX

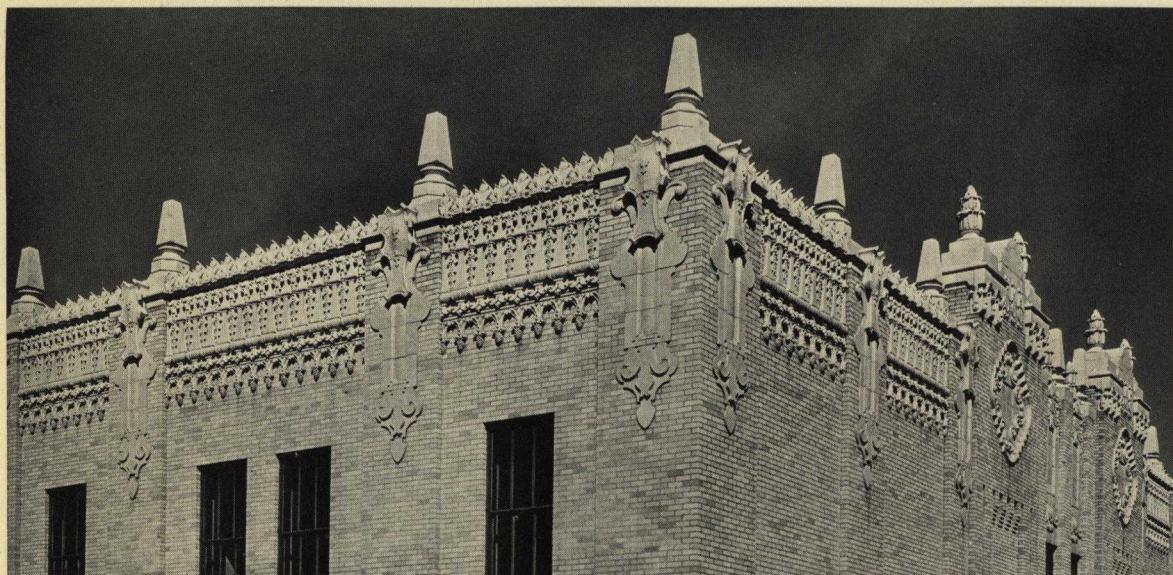


Plate CXXXI  
Number 1475

**SOUTHWESTERN BELL TEL. BLDG.**

I. R. Timlin, Architects

San Antonio, Texas

McKenzie Construction Company, Builders

The upper illustration shows a detail of the parapet of the main building; the lower shows a section of the pent-house parapet. Terra Cotta is an ideal material for parapet construction. The reason—a Terra Cotta parapet not only is colorful and decorative, but also is water and weather proof providing protection to the entire building. It is interesting to note that in a portfolio of modern parapets published a few months ago by a popular architectural magazine, of the total of sixty four parapets illustrated, twenty eight were of Terra Cotta, of which eleven were manufactured by the Atlantic Company.

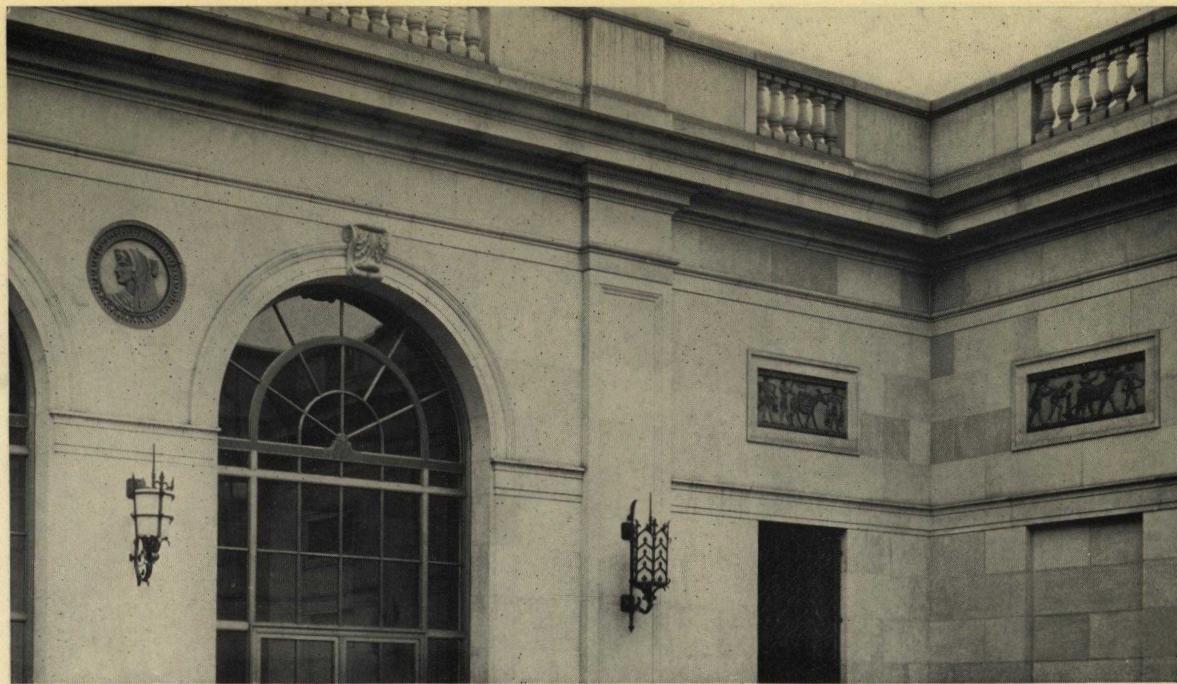


Plate CXXXII

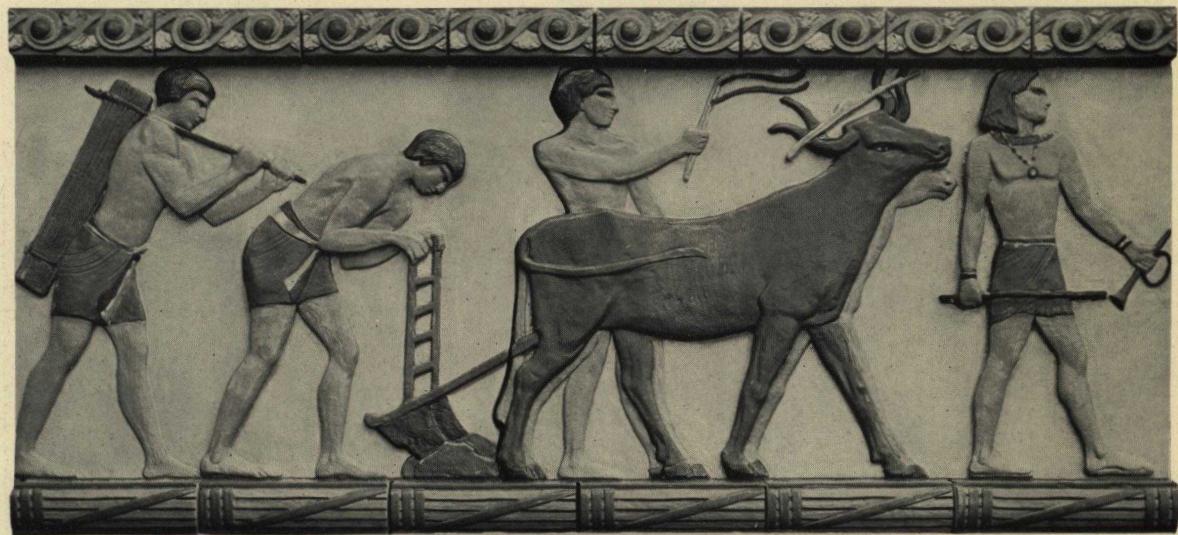
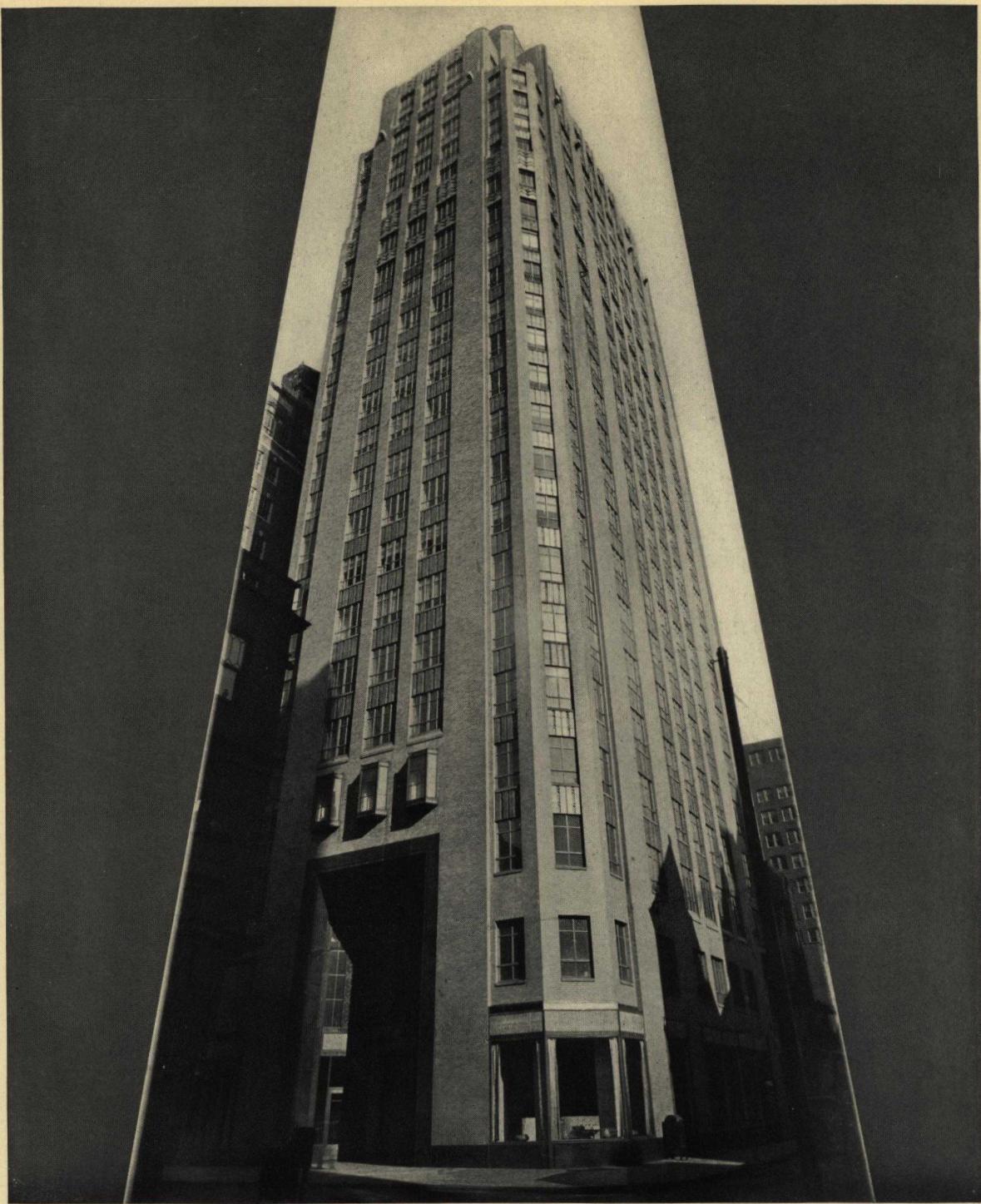


Plate CXXXIII  
Number 1174

**COURT, COLUMBUS GALLERY OF FINE ARTS** Columbus, O.  
Richards, McCarthy & Bulford, Architects

Boyajohn & Barr, Inc., Builders

The Atlantic Terra Cotta panels in the Garden Court of the Columbus Gallery of Fine Arts were designed to provide spots of color to relieve the monotony of the limestone walls. These and the central fountain provide the color and variety necessary to make the Garden Court an attractive resting place for the visitors to the gallery. The design of these panels is based on Assyrian, Egyptian and Persian motifs but it was felt that the decorative purpose would be best carried out by the use of a simple and subdued color scheme rather than by attempting to copy slavishly the brilliant colors used by the ancients. The colors used for all panels were limited to five; tan, buff, brown, black, and orange. The panel shown above represents Egyptian farmers ploughing. The one illustrated on the cover shows Assyrian warriors in battle. The architects write: "We felt very naturally that Terra Cotta was the only appropriate material for panels in which color and modeling are both of prime importance."



## ARCHITECTS' BUILDING

Designed by Architects Group consisting of Members of the Philadelphia Chapter A.I.A.  
Victor D. Abel, Executive in Charge John R. Rankin, Chairman Wark Company, Builders

Philadelphia, Pa.

Plate CXXXIV  
Number 1309

This new business home for Philadelphia Architects was designed by architects for their own use. It is significant that it is faced completely with clay products and it is indeed complimentary to the Atlantic Terra Cotta Company that it was selected to manufacture the large amount of Terra Cotta required. . . . This building houses a permanent architectural exhibit in which some of the products of the Atlantic Terra Cotta Company are displayed. The Philadelphia headquarters of the Atlantic Company are also located here.



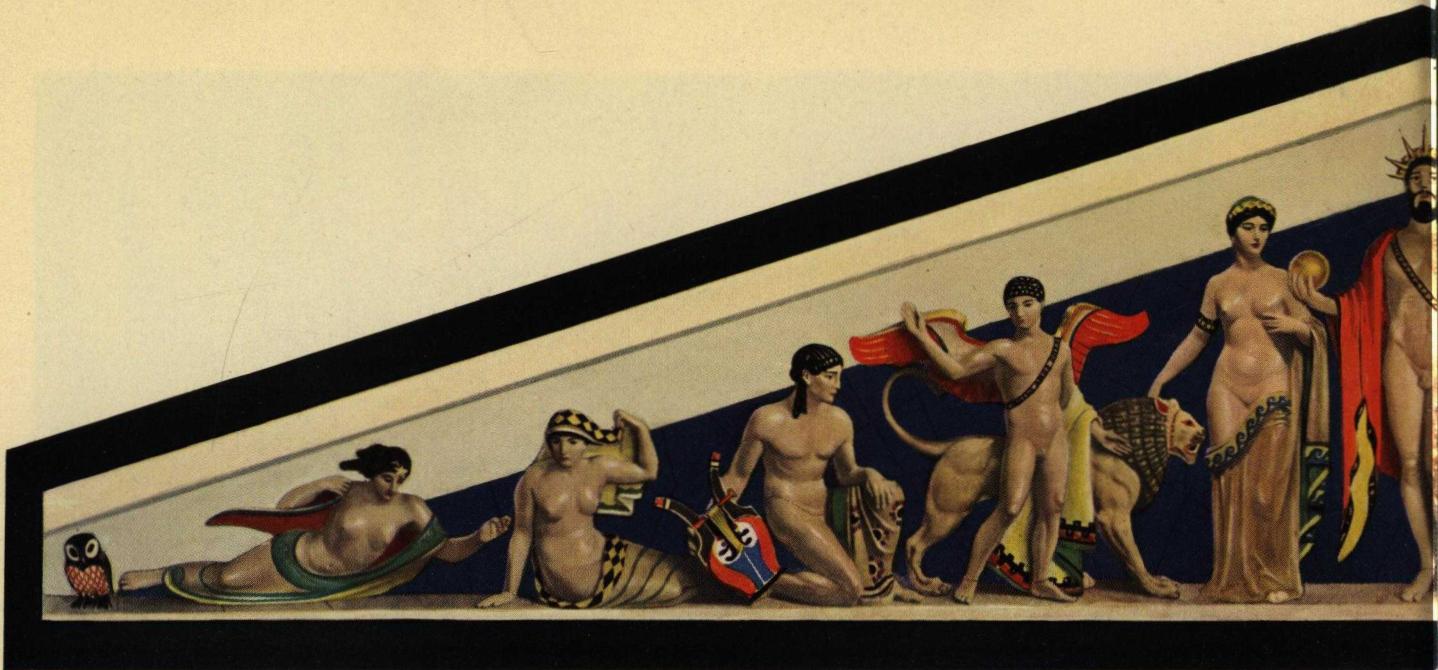
Plate CXXXV  
Number 1309

### ARCHITECTS' BUILDING

Philadelphia, Pa.

Designed by Architects Group consisting of Members of the Philadelphia Chapter A.I.A.  
Victor D. Abel, Executive in Charge John R. Rankin, Chairman Wark Company, Builders

The above illustration shows a few of over four hundred spandrels of Atlantic Terra Cotta. The color was especially made for these and is an unusual shade of brown. Certain of the upper story spandrels were made with decorative inserts of green and gold. The effect is a successful accentuation of the vertical lines and one which, at the same time, permits color to have a dominant place in the design. *\*\*\** Terra Cotta is a most appropriate material for spandrels. It allows the economical use of modeled ornament and permanent color and although light in weight, provides great insulating values against heat, cold and sound.



The Pennsylvania Museum of Art in Fairmount Park, Philadelphia, has attracted worldwide attention because of its use of brilliantly colored Atlantic Terra Cotta for all decorative details. This building is the first of importance in over two thousand years to adapt polychromy in this manner, the difference being that in the case of the ancient Grecian architecture the Terra Cotta details were painted with perishable pigments while those of the Pennsylvania Museum are of ceramic glazes.

Of particular interest is the recently completed tympanum which consists of thirteen free-standing figures, executed in brilliant polychrome and gold glazes. It is seventy feet wide at the base ranging to twelve feet in height and is the outstanding example in the world today of ceramic art in colors. The illustration above is from a composite photograph of the tympanum as temporarily installed at the Perth Amboy plant of the Atlantic Company. It does not show the figures in their exact perspective and the colors could not possibly portray the warmth and brilliancy of the original.

According to C. Paul Jennewein, the sculptor, the mythological figures signify sacred and profane love, the two great underlying forces beneath the development of art and civilization in every age.

The central figure represents the Creative Force or the Will of Man and may be taken as Zeus or as Jupiter, the supreme tutelary gods of the Greeks and Romans.

The first figure on the spectator's right of the central figure is Demeter or Ceres, the goddess of law and order, of marriage and of peaceful life. The child holding to her hand exemplifies returning life and is Triptolemus, saved from sacrifice by his mother, that he may teach men what their labor may win for them. Behind these figures is the laurel tree into which Daphne was changed by the gods to save her from the profane love of Apollo and, sitting at the foot of the laurel is Ariadne abandoned to the gods by Theseus, on a warning from Minerva. Theseus himself is kneeling, slaying the Minotaur, that half beast which devours all good in us. This side of the tympanum ends with the full beast Python, showing the lowest step from which our spiritual natures have been compelled to rise. To the left of the main figure is Venus, the Roman goddess of love or Aphrodite, the Greek goddess of love and beauty. The next is Cupid, the Roman god of love or



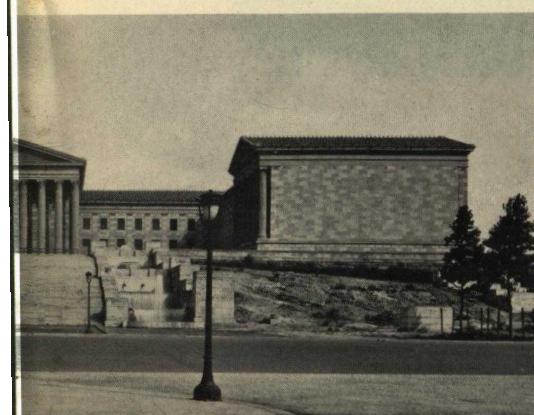


the Greek god, Eros. With him is the Lion into which the wretched Hippomenes was changed by Cybele for slighting the gods. Cupid is showing the Lion to the kneeling Adonis as a warning to obey the counsel of Venus, neglect of which brought on his death. Scientific Intellect is exemplified by Nous, that subtle figure in Mythology typifying the stimulation of mind and imagination. Beyond is Aurora, typifying the dawning mind and who is turning from the Owl, the bird of night.

Numerous groups of prominent architects, sculptors and artists from various sections of the country inspected the tympanum while exhibited at our plant and all were unanimous in their enthusiasm and praise regarding it. A public showing was also held which was attended by over ten thousand people from Perth Amboy and vicinity.

This is the first time since the days of early Greece that such a tympanum has been attempted. The application of color was based upon considerable research in fundamental Greek practices as evidenced in archaeological restorations of fragments from the lost cities of Olympia, Kalydon, and others. Considerable experiment was required before the colors, as finally achieved, were selected because certain colors as seen in the light of the studio change materially at a great distance above eye level. New methods of manufacture had to be developed in order to properly execute this work, so that not only is its actual completion of great importance, but it will pave the way for other and possibly greater strides in the fascinating science of Terra Cotta and ceramics.

Other details of the building which are of Atlantic Terra Cotta in full color are the cornice, the Ionic and Corinthian column capitals, all the portico ceilings, the ceiling of the five hundred feet long groined vault extending under the building and the Grecian tile roof covering four acres. The interior of the main entrance, too, is decorated with polychrome Atlantic Terra Cotta, continuing the Grecian influence of the exterior design. This beautiful building is largely responsible for much of the present day revival of interest in the use of color in architecture. Credit for this should be given to the architects, Horace Trumbauer, C. C. Zantzinger and C. L. Borie, Jr.; to C. Paul Jennewein, the sculptor of the figures who also modeled the architectural details; to Leon V. Solon whose researches into ancient Grecian polychromy authenticated the coloration of the Terra Cotta and to Eli K. Price, Esq., President of the Pennsylvania Museum of Art.





Warren, Knight & Davis, Architect  
Foster & Creighton Company, Builders

### PROTECTIVE LIFE BUILDING

Birmingham, Ala.

Another modern office building completely faced with Atlantic Terra Cotta in a warm mottled tan Abbochrome, a color which adds a distinct attractiveness to the entire building. It is generally conceded that color will be increasingly used in the future for tall buildings. Recommended are Atlantic Abbochrome colors for piers and ashlar areas and polychrome colors for spandrels and other decorative details. Some architects advocate the use of full color with gradually increasing intensity so that from the street level the building will appear uniform in color and tone.

Plate CXXXVI  
Number EP4401

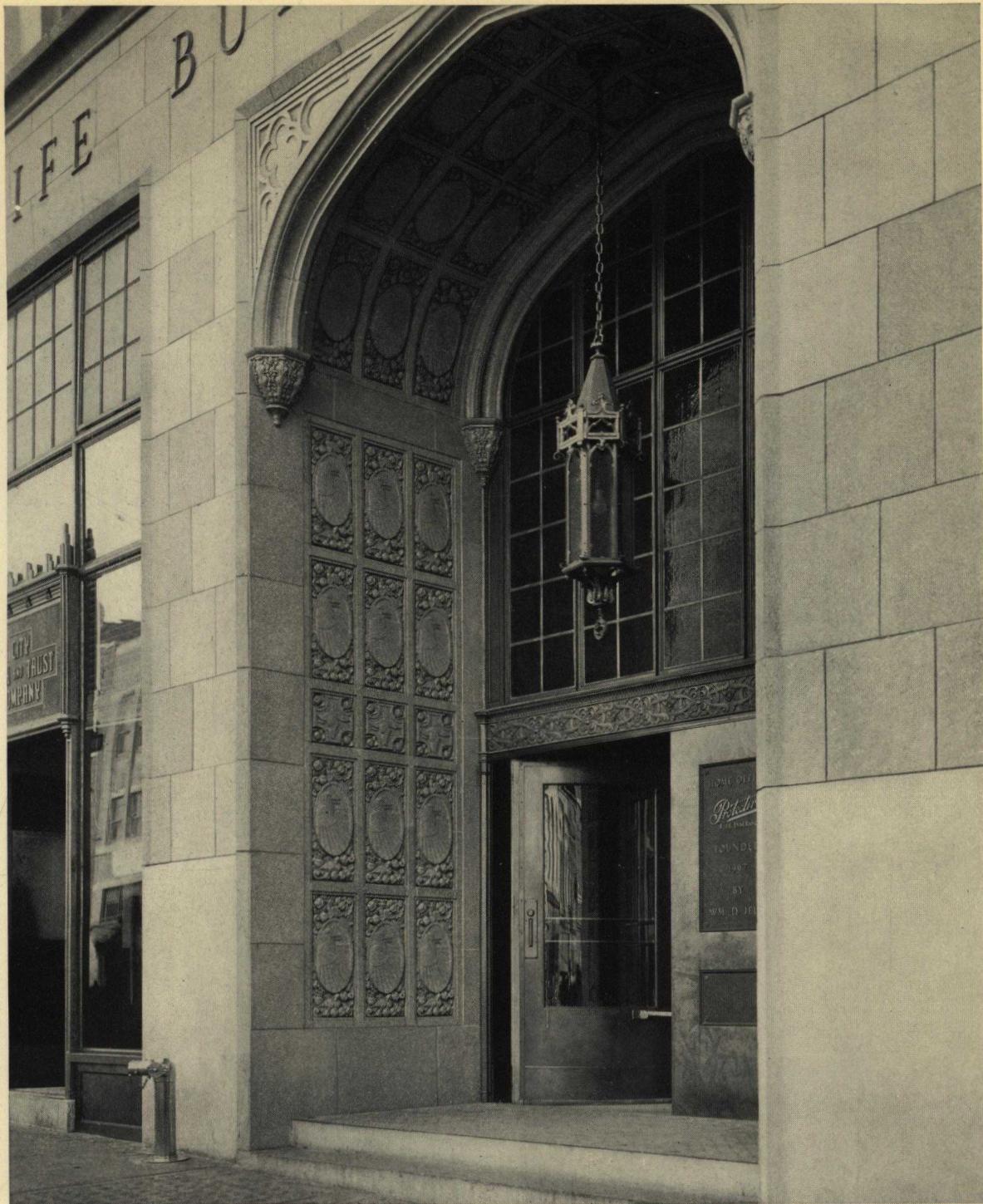


Plate CXXXVII  
Number EP4401

### PROTECTIVE LIFE BUILDING

Warren, Knight & Davis, Architects

Birmingham, Ala.

Foster & Creighton Company, Builders

Detail of main entrance showing the interesting modeling of the panels of the soffit and side walls. Ornamental effects such as this, where detail is repeated, can very economically be obtained in Atlantic Terra Cotta. . . . The Terra Cotta was manufactured by our Southern Plant, the Atlanta Terra Cotta Company of Atlanta, Georgia.



## MUNICIPAL BUILDING

G. Lloyd Preacher & Co., Inc. Architects

Atlanta, Ga.

National Construction Co., Inc., Builders

Plate CXXXVIII  
Number EP4510

This public building in a modern adaptation of Gothic design is faced entirely with Atlantic Terra Cotta in two shades of Abbochrome, a mottled tan for the body color and a mottled green for the spandrels. The seals of the City of Atlanta, inserted in the third and eleventh stories' spandrels, are of the tan color, which contrasts with the dark background. The Terra Cotta was manufactured by our Southern Plant, the Atlanta Terra Cotta Company of Atlanta, Georgia.



Plate CXXXIX  
Number EP4510

### MUNICIPAL BUILDING

G. Lloyd Preacher & Co., Inc., Architects

Atlanta, Ga.

National Construction Co., Inc., Builders

Detail of main entrance of this up-to-date public building. • • • Municipal and other public buildings in many cities have used Atlantic Terra Cotta either for the complete facing, as in the above installation, or for decoration and color. Prominent examples are the Dade County Courthouse and City Hall, Miami, Fla., the City Hall, Asheville, N. C., the new State Capitol, Charleston, W. Va. and the recently constructed Municipal Building, Buffalo, N. Y. It is also interesting to note that Atlantic Terra Cotta will be used in the United States Department of Agriculture Building in Washington, D. C., now under construction and which will be the largest public building in the world.



Plate CXL  
Number 1862

### CARLISLE TELEPHONE BUILDING

Bobb & Todd, Architects

Carlisle, Pa.  
United Telephone Co. of Pennsylvania, Owners

This most attractive building is situated in one of Pennsylvania's oldest towns. Ultra-modern in design and color, it never-the-less perfectly adapts itself to its surroundings and the townspeople are more than pleased with their first modern, all Terra Cotta building. It is interesting to contrast with this the first telephone building constructed over forty years ago at 18 Cortlandt Street in New York City and also of Atlantic Terra Cotta. Designed in the prevailing style of the times and in an unglazed buff color this building is still in perfect condition and still being used by the New York Telephone Company.



Plate CXLI  
Number 1862

### CARLISLE TELEPHONE BUILDING

Bobb & Todd, Architects

Carlisle, Pa.

United Telephone Co. of Pennsylvania, Owners

Detail view of parapet which shows the formal modern design of the pier caps and inserts. All ornament is in brilliant color consisting of yellow, black, blue, green, orange, red and gold which contrast pleasantly with the body color, a mottled tan Abbochrome. This example of modern American architecture combines simplicity, balance, color and the use of an up-to-date material in a structure that is ideally adapted to its purpose.



Plate UXII

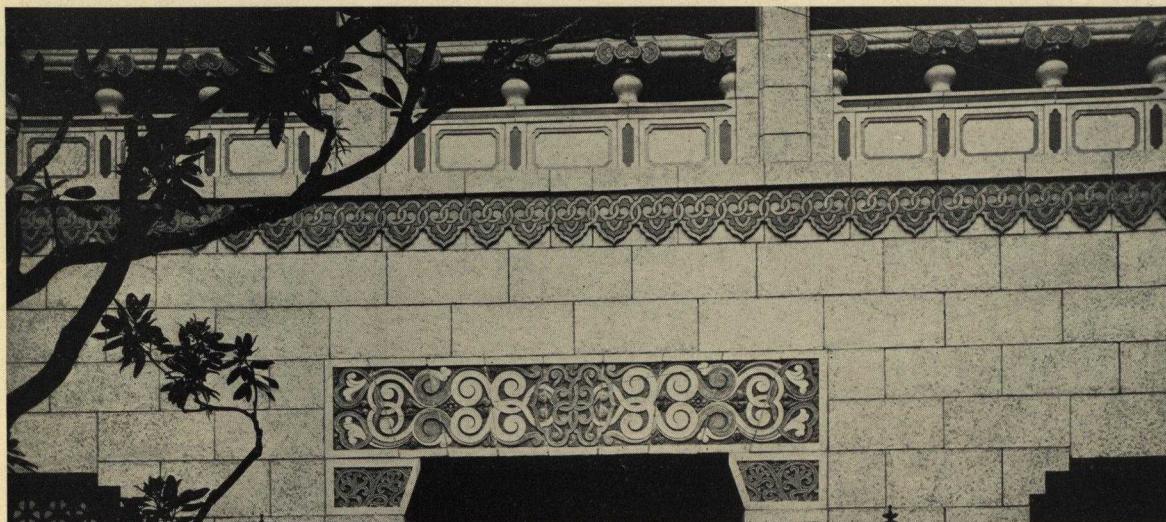


Plate CXLIII  
Number M3012

**HAWAII TELEPHONE SYSTEM BUILDING**      **Hilo, Hawaii**  
C. W. Dickey, *Architect*      Ames Wills Ltd., *Builders*

This attractive business building is another instance where the trend of quality and the use of color has caused Atlantic Terra Cotta to be used for the entire exterior. The color is a mottled golden cream and buff with a special oak bark surface, relieved with polychrome courses and panels in oriental motifs. The Architect writes: "The Terra Cotta was made satisfactory in every way; the blocks were square and true and out of wind, the colors were good and the material was unusually well packed so that breakage was negligible. I congratulate the Atlantic Terra Cotta Company upon their work."

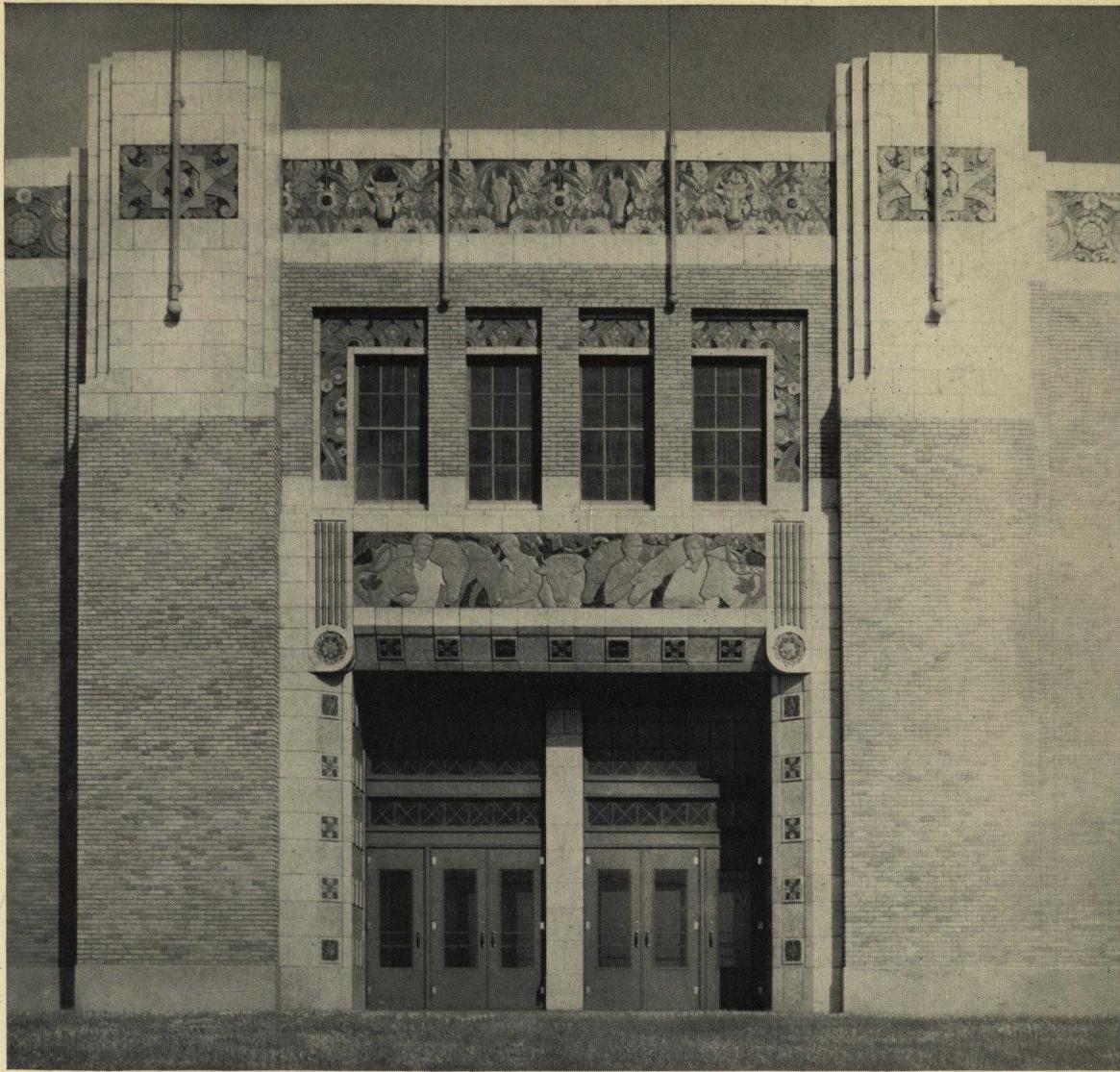


Plate CXLIV

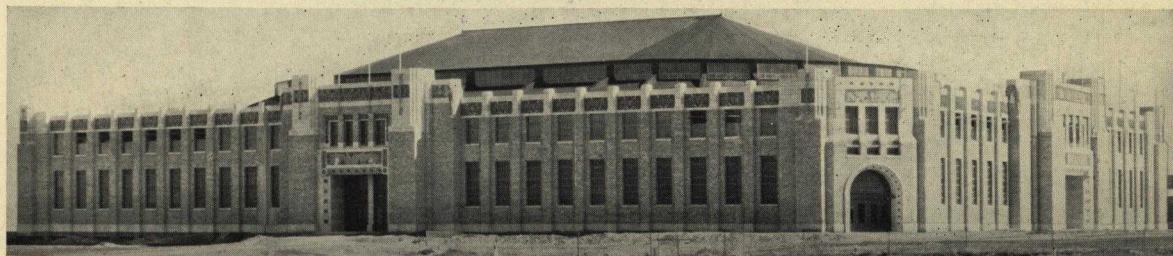


Plate CXLV  
Number EP4920

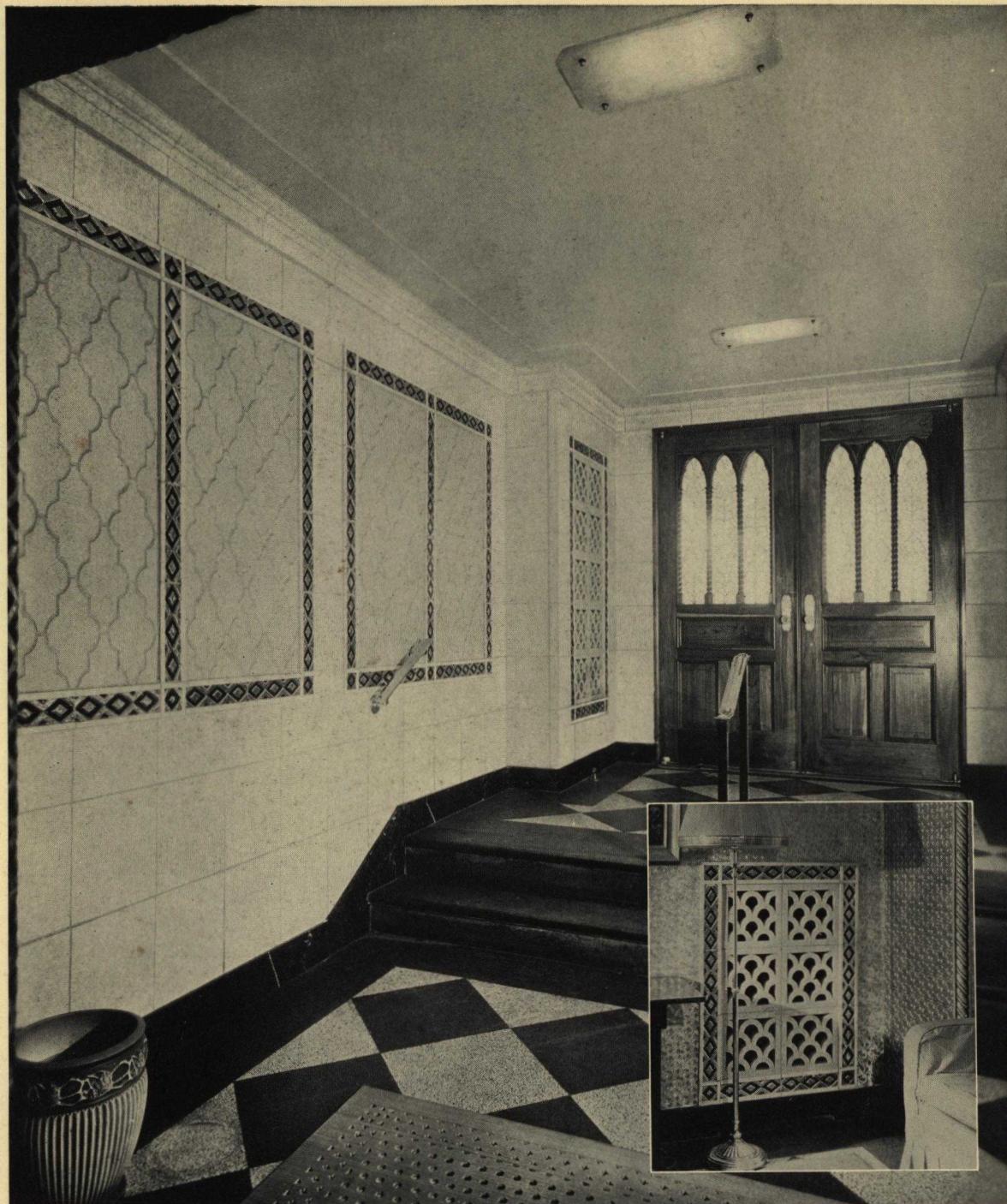
### COLISEUM AND FAIR BUILDING

Leland I. Shumway, *Architects*

Tulsa, Okla.

Manhattan Construction Company, *Builders*

This building which is to be a permanent plant of the Oklahoma State Fair Association is practical in every way and yet it achieves distinction because of its fine balance and judicious use of color. The decorative frieze around the entire building, as well as the panels and inserts of the several entrances are all in brilliant polychrome; the pier caps, coping and frieze border are an Abbochrome color. The pictorial panels over the main entrances are well modeled and portray the character and purpose of the building. The Terra Cotta was manufactured by our Southern Plant, the Atlanta Terra Cotta Company of Atlanta, Georgia.



## APARTMENT HOUSE

Fred W. Klie, *Architect*

101 Lafayette Ave., Brooklyn, N. Y.

Plate CXLVI  
Number 1887

This entrance lobby portrays an unusual combination of various standard designs of Atlantic Wall Units. The square units are of a light mottled cream and tan Abbochrome color. The interlocking tiles are in a darker tone. The panel borders, also, are of a mechanically made standard design, executed in silver and black. The panel in the background near the entrance is a perforated grille, made of handmade Atlantic Terra Cotta as is the smaller grille shown in the insert. Grilles of this type are often made in Atlantic Terra Cotta, not only for radiator openings, but in conjunction with ventilating and air conditioning devices. The entrance feature of this building is also of Atlantic Terra Cotta in rich polychrome colors.

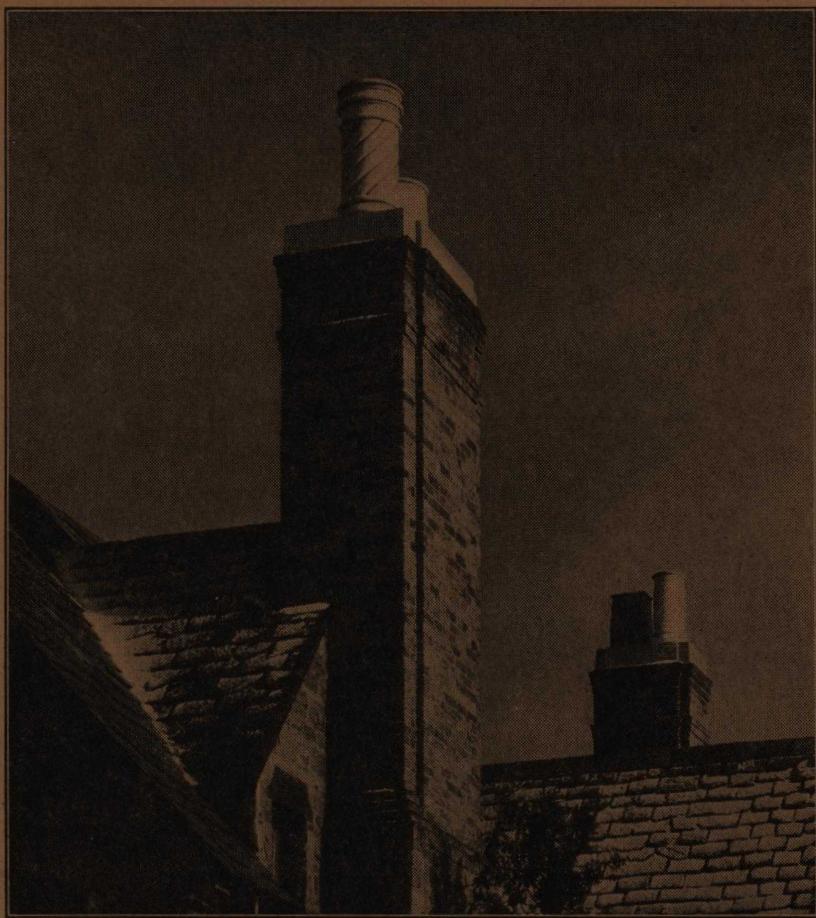
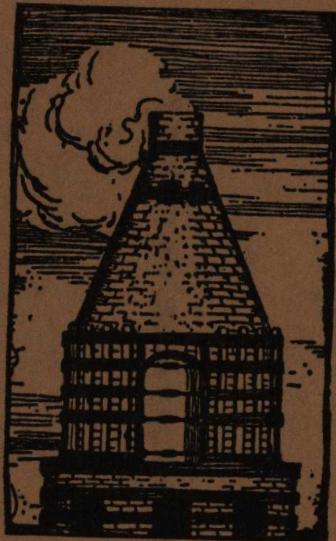


Plate CXLVIII

## COLOR— In Atlantic Chimney Pots

Atlantic chimney pots are made in thirty-one authentic old English designs in a complete range of flue sizes. They are unique in the fact that they can be obtained in any desired unglazed or glazed color. This allows the architect opportunity to create a skyline of beauty and interest and one that can be made to either contrast or harmonize with the building, the surroundings or with the customary colored roofs. □ □ □ The chimney pots illustrated are on a residence at Utica, N. Y., for which Kinne and Frank were the architects. In this installation the chimney pots were used to relieve the rather severe, although balanced design of the chimneys. Shown are a CP-508 in blue; a CP-514 in buff; a CP-608 in gray and a CP-617 in red. □ □ □ A catalog of our complete line of chimney pots which also illustrates several of our standard colors will be sent upon request.



**ATLANTIC TERRA COTTA COMPANY**

**19 West 44th Street, New York, N. Y.**

**Southern Branch: ATLANTA TERRA COTTA CO., Atlanta, Ga.**  
**Plants at Perth Amboy, N. J., Rocky Hill, N. J., Tottenville, N. Y., East Point, Ga.**